# Equazioni di primo grado numeriche frazionarie

PASSED

risolvi le seguenti equazioni di primo grado numeriche frazionarie

| | | |
|---|---|---|
| 1 | $4-\frac{5}{x}=0$ | $\frac{5}{4}$ |
| 2 | $\frac{6}{x}-2=4$ | $1$ |
| 3 | $\frac{7x+14}{x-2}=0$ | $-2$ |
| 4 | $\frac{1}{x}+\frac{1}{2}=4$ | $\frac{2}{7}$ |
| 5 | $\frac{3}{x-2}=0$ | *impossibile* |
| 6 | $\frac{3}{x-10}+1=0$ | $7$ |
| 7 | $\frac{3x-16}{x}=\frac{5}{3}$ | $12$ |
| 8 | $\frac{4}{3x-1}=\frac{1}{2+x}$ | $-9$ |
| 9 | $\frac{1}{3}\left(9-\frac{42}{x}\right)=\frac{4}{x}-6$ | $2$ |
| 10 | $\frac{2y-3y^2}{y+1}=\frac{5}{y+1}-3y$ | $1$ |
| 11 | $\left(\frac{4}{x}+\frac{x}{4}\right):\left(\frac{4}{x}-\frac{x}{4}\right)=\frac{x^2-2x}{16-x^2}$ | $-8$ |
| 12 | $\frac{2}{3}\left(1-\frac{2}{a}\right)+\frac{3}{2}\left(1-\frac{3}{a}\right)=1$ | $5$ |
| 13 | $\frac{2}{x+1}=\frac{1}{x-3}$ | $7$ |
| 14 | $\frac{2}{x+1}=\frac{3}{x-1}$ | $-5$ |
| 15 | $\frac{y-2}{y+1}=\frac{y-4}{y+3}$ | $\frac{1}{2}$ |
| 16 | $\frac{x+1}{x-2}+\frac{x-1}{x+2}=2$ | *impossibile* |
| 17 | $\frac{4(a-3)}{a+3}-4=\frac{3}{a-3}$ | $\frac{7}{3}$ |

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|---|---|---|
| 18 | $\frac{1}{1-x}+\frac{1}{x-1}=1$ | *impossibile* |
| 19 | $\frac{1}{x-3}=-\frac{2}{x+5}$ | $\frac{1}{3}$ |
| 20 | $\frac{x-1}{x+1}-\frac{x+1}{x-1}+\frac{8}{x^2-1}=0$ | 2 |
| 21 | $\frac{4}{x-4}=\frac{4}{x+4}$ | *impossibile* |
| 22 | $\frac{1}{x^2-3x}+\frac{1}{x^2+x}=\frac{4}{x^2-2x-3}$ | *impossibile* |
| 23 | $\frac{y+2}{y-4}=\frac{y+1}{y-3}$ | 1 |
| 24 | $\frac{z+1}{z-1}-\frac{2z-2}{z+1}=\frac{z+1}{1-z}$ | 0 |
| 25 | $\frac{1+3x}{x}+\frac{4}{x-2x^2}=\frac{6x}{2x-1}$ | $-5$ |
| 26 | $\frac{2y}{y-2}-\frac{1-y}{2y-y^2}-2=\frac{1}{y}$ | $-\frac{3}{2}$ |
| 27 | $\frac{x+1}{x-1}-\frac{3+6x}{x+1}=\frac{3x-5x^2+6}{(x+1)(x-1)}$ | *impossibile* |
| 28 | $\frac{1}{2-3z}-\frac{6}{3z^2-2z}=\frac{5}{z}$ | $\frac{1}{4}$ |
| 29 | $\frac{1}{x^2-4}-\frac{1}{(x+2)(x-1)}=\frac{2}{(x-1)(x-2)}$ | $-\frac{3}{2}$ |
| 30 | $\frac{1+y}{y+3}+\frac{y+1}{y-3}=\frac{2(y^2+3)}{y^2-9}-\frac{1}{y+3}$ | *impossibile* |
| 31 | $\frac{x+\frac{1}{2}}{x}-\frac{x-\frac{1}{2}}{x}=1$ | 1 |
| 32 | $\frac{x^2+3}{x+4}=x-2$ | $\frac{11}{2}$ |
| 33 | $\frac{x}{2(x+1)}=\frac{x^2}{x+1}-x-1$ | $-\frac{2}{5}$ |
| 34 | $\frac{5x}{2x+3}=1+\frac{3x}{2x-3}$ | $\frac{3}{8}$ |

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|---|---|---|
| 35 | $\frac{2x-4}{2x+2}=\frac{x}{x+1}-\frac{1}{x}$ | 1 |
| 36 | $3\left[\frac{1}{2}(x-1)+\frac{4}{x}\right]=\frac{1+3x}{2}$ | 6 |
| 37 | $\frac{2}{1-2a}+\frac{1}{2a-1}=\frac{1-5a}{1-4a^2}$ | 0 |
| 38 | $\frac{2}{z+2}-\frac{6}{3-z}=\frac{32}{z+6-z^2}$ | $-\frac{19}{4}$ |
| 39 | $\frac{1}{x^2+4x+3}-\frac{1}{x^2-2x-3}=\frac{1}{x^2-9}$ | $-7$ |
| 40 | $\frac{1}{x^2-1}-\frac{1}{x-x^2}=\frac{2}{x^2+x}$ | *impossibile* |
| 41 | $\frac{4}{z+1}-\frac{3z}{z-3}=\frac{9z}{9-3z}$ | *impossibile* |
| 42 | $\frac{1}{2x-4}-\frac{2}{x+2}=\frac{x+5}{3x^2-12}$ | $\frac{20}{11}$ |
| 43 | $\frac{10}{(x-5)^2}+\frac{x}{x-1}=1$ | *impossibile* |
| 44 | $\frac{4+x}{x-3}-\frac{3+x}{x-2}=\frac{5}{x^2-x-6}$ | *impossibile* |
| 45 | $\frac{x+5}{x+3}-\frac{3x}{x+2}=\frac{6-2x^2}{x^2+5x+6}$ | 2 |
| 46 | $\frac{2-x}{3x+6}+\frac{1-3x}{2+x}=2$ | $-\frac{7}{16}$ |
| 47 | $\frac{1}{x^2-9}=\frac{3}{x+3}-\frac{2}{2x+6}$ | $\frac{7}{2}$ |
| 48 | $\frac{1}{3(x+4)}+\frac{4}{3x}=\frac{x-1}{8x+2x^2}$ | $-5$ |
| 49 | $\frac{2}{x^2-x}-\frac{1}{x^2+x}=\frac{4}{(x-1)(x+1)}$ | *impossibile* |
| 50 | $\frac{2}{x^2-1}=\frac{3}{x^2-4}-\frac{1}{x^2+x-2}$ | $-7$ |
| 51 | $\frac{3x-12}{x^2-16}=0$ | *impossibile* |

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|---|---|---|
| 52 | $\left(\frac{3}{2x-2}-\frac{3}{2x+2}\right)\left(\frac{1}{2x}-\frac{1}{2}\right)+\frac{1}{2x+2}=\frac{1}{x}$ | $-5$ |
| 53 | $\frac{1}{2x-x^2}+\frac{1}{x^2-4}=\frac{2}{x^2+2x}$ | $1$ |
| 54 | $\frac{1}{2z+4}-\frac{1}{4-2z}=\frac{z+1}{(z+2)(z-2)}$ | *impossibile* |
| 55 | $\frac{5}{y^3-1}+\frac{y}{y^2+y+1}=\frac{1}{y-1}$ | $2$ |
| 56 | $\frac{1}{x^2+4x+3}=\frac{3}{18-2x^2}+\frac{1}{x^2-2x-3}$ | *impossibile* |
| 57 | $\frac{x-2}{x^3-x}+\frac{1}{x^2-1}=\frac{2}{x^2+x}$ | $per\ x\neq 0, x\neq \pm 1$ *equazione indeterminata* |
| 58 | $\frac{4}{3x-4}-\frac{4}{3x+4}=\frac{6(2x+5)}{9x^2-16}-\frac{1}{3x-4}$ | $\frac{2}{3}$ |
| 59 | $\frac{2(x^2+2)}{x^2-4}-1=\frac{x+1}{x-2}$ | *impossibile* |
| 60 | $\frac{3}{x+3}=\left(\frac{x-3}{x+3}-\frac{x+3}{x-3}\right):\left(\frac{x-3}{x+3}+1\right)$ | $-1$ |
| 61 | $\frac{1}{x^2+2x-3}-\frac{1}{x^2-3x+2}=-\frac{1}{(x-2)(x+3)}$ | $6$ |
| 62 | $\frac{2x}{x^2+1}=\left(\frac{x+1}{x-1}-\frac{x-1}{x+1}\right):\left(\frac{x-1}{x+1}+\frac{x+1}{x-1}\right)$ | $\forall x\neq \pm 1$ *equazione indeterminata* |
| 63 | $\frac{2+x}{x+2}+\frac{x+1}{x-2}=\frac{2(x^2+2)}{(x-2)(x+2)}$ | *impossibile* |
| 64 | $\frac{2}{x^2-x-2}+\frac{1}{3x^2+2x-1}=\frac{7x-11}{3x^3-4x^2-5x+2}$ | *impossibile* |
| 65 | $\frac{4x-x^2}{x^4-16}+\frac{1}{4x-8}=\frac{1}{4x+8}$ | $-1$ |
| 66 | $\frac{\frac{1}{x}+\frac{1}{3}}{\frac{1}{x}-\frac{1}{3}}:\frac{x^2+3x}{3x-9}-\frac{x}{3}+\frac{2x-3}{6}=2$ | $-\frac{6}{5}$ |
| 67 | $\frac{\frac{1}{y-2}+\frac{1}{y+2}}{\frac{1}{y+2}-\frac{1}{y-2}}=2$ | $-4$ |

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|---|---|---|
| 68 | $\frac{x+\frac{1}{2}}{x-\frac{1}{2}} = 2 - \frac{x+4}{x-4}$ | $\frac{8}{9}$ |
| 69 | $\frac{1-2z}{z^2+3z} + \frac{4z-6}{2z^2-6z} + \frac{12}{9-z^2} = 0$ | $-6$ |
| 70 | $\frac{a+2}{a^2-2a} - \frac{8}{a^2-4} = \frac{2a}{a^2-4} - \frac{a-2}{a^2-2a}$ | *impossibile* |
| 71 | $-\frac{4}{x} - \frac{4}{1-x} - \frac{5}{x+x^2} = \frac{5}{x^2-1}$ | $\frac{3}{2}$ |
| 72 | $\frac{2x}{x^2-3x} + \frac{12}{9-x^2} = \frac{2x}{x^2+3x}$ | *per* $x \neq -3$ *equazione indeterminata* |
| 73 | $\frac{1}{5z+5} + \frac{1}{5z-5} + \frac{1}{5} = \frac{z^2+5}{5+5z^2-10z}$ | $-\frac{1}{2}$ |
| 74 | $\frac{3}{x^2-x} + \frac{3}{x^2+x} + \frac{3}{x} = \frac{x-3x^2}{x-x^3}$ | $\frac{3}{7}$ |
| 75 | $\frac{x-3}{x+1} = -5\frac{2x-1}{x+1}$ | $\frac{8}{11}$ |
| 76 | $\frac{3}{x-1} = \frac{2}{3}$ | $\frac{11}{2}$ |
| 77 | $\frac{1}{2x-1} = \frac{1}{x} - \frac{1}{2x+2}$ | $2$ |
| 78 | $\frac{x}{2x+6} = \frac{1}{2} + \frac{x+1}{x+3}$ | $-\frac{5}{2}$ |
| 79 | $\frac{2x-6}{x^2-2x-15} = \frac{1}{x+3} + \frac{2}{x-5}$ | $-7$ |
| 80 | $\frac{x^2}{2} - 9\frac{x-3}{4x-6} + \frac{2x^3}{3-2x} = \frac{6x^2-9x}{6-4x}$ | *impossibile* |
| 81 | $\frac{x}{x-3} = \frac{x}{x+3} + \frac{2}{x^2-9} + 1 - \frac{x^2}{x^2-9}$ | $-\frac{7}{6}$ |
| 82 | $\frac{x}{x-5} = \frac{2}{x^2-25} + 1$ | $-\frac{23}{5}$ |
| 83 | $\frac{x}{x+1} = \frac{2x+1}{2x+2} + \frac{3}{x^2-1}$ | $-5$ |
| 84 | $\frac{6x+4}{4x^2+4x+1} - \frac{4x}{4x^2-1} = \frac{1}{2x+2} - \frac{2}{4x^2-1}$ | $-\frac{3}{4}$ |

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|---|---|---|
| 85 | $\frac{x^2}{x^2-5x-14}+\frac{3x}{x+2}+\frac{2x}{x-7}=\frac{5x+6}{x+2}+1$ | $-\frac{56}{17}$ |
| 86 | $\frac{x+7}{x+2}+x=\frac{x^2-1}{x+1}-\frac{1}{x+2}-\frac{3-2x^2}{x^2+x+2}$ | *impossibile* |
| 87 | $\frac{x^2-1}{x^2-x}=\frac{x}{x-4}-\frac{3x^2}{x(x-1)(x-4)}$ | *impo\ssibile* |
| 88 | $\frac{1}{-x^2+2x-1}=-\frac{3}{x-1}-\frac{2}{3x-3}$ | $\frac{14}{11}$ |
| 89 | $\frac{4x-1}{4x^2-1}=-\frac{3x+5}{1-2x}+\frac{1-3x}{2x+1}$ | $-\frac{5}{14}$ |
| 90 | $\frac{x}{x+1}=\frac{1}{3x+3}+\frac{2}{3}$ | 3 |
| 91 | $\frac{2x}{x-3}-\frac{x^2}{x-2}+\frac{3x-x^2}{2-x}=\frac{x-x^2}{x^2-5x+6}$ | 0 |
| 92 | $\frac{2x+1}{x+1}+\frac{5}{1-x}=\frac{2}{x^2-1}$ | 4 |
| 93 | $5+\frac{4-2x}{x+2}+\frac{5}{1-x}=\frac{3x+2}{x-1}$ | $-14$ |
| 94 | $\frac{5}{4x^2-4x+1}-\frac{1}{(2x+1)^2}-\frac{3}{(4x^2-1)^2}=\frac{20x^2+27}{16x^4-8x^2+1}-\frac{1}{4x^2-1}$ | $\frac{9}{8}$ |
| | a coefficienti irrazionali | |
| 95 | $\frac{x+\sqrt{5}}{x-\sqrt{5}}=1-\frac{\sqrt{2}}{\sqrt{5}}$ | $\sqrt{5}-5\sqrt{2}$ |
| 96 | $\frac{1+3\sqrt{2}}{x^2-4}=\frac{\sqrt{2}-\sqrt{3}}{x-2}-\frac{\sqrt{2}+\sqrt{3}}{x+2}$ | $\frac{\sqrt{6}-\sqrt{3}}{6}$ |
| 97 | $\frac{3x+2\sqrt{3}}{3x-2\sqrt{3}}=\frac{6x+4\sqrt{3}}{3x-2\sqrt{3}}-3$ | $\frac{4}{3}\sqrt{3}$ |
| 98 | $\frac{x-2\sqrt{2}}{x-\sqrt{2}}-\frac{x-\sqrt{2}}{x-2\sqrt{2}}=\frac{3\sqrt{2}}{4\sqrt{2}-2x}$ | $3\sqrt{2}$ |